

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1.(currently amended) A method for reducing a content of contaminating metals in ionic form present in aqueous effluents, comprising:

(a) providing an aqueous effluent comprising at least a metal M_i in ionic form, the metal M_i being at least one selected from the group consisting of scandium, yttrium, lanthanum, actinium, titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, tungsten, manganese, technetium, iron, ruthenium, cobalt, rhodium, nickel, platinum, copper, silver, zinc, cadmium, mercury, aluminum, gallium, indium, thallium, silicon, germanium, tin, lead, arsenic, antimony, bismuth, selenium, tellurium, polonium, iodine, astatine, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium, thorium, protactinium, uranium,

neptunium, plutonium, americium, curium, berkelium,
californium, einsteinium, fermium, mendelevium, nobelium
and lawrencium, alone or in admixture;

(b) treating the aqueous effluent with at least a metal M_h completely or partially coated with hydrogen during the treatment of the metal ion(s) M_i , wherein the metal ions M_i are chemisorbed on the metal M_h ; and

(c) recovering an aqueous effluent from which the metal M_i has been eliminated or its content reduced.

2.(previously presented) The method according to claim 1, wherein the metal M_h comprises one or more metals selected from the group consisting of elements of Groups Ib, IIb, IIIb, IVb, Vb, VIb, VIIb and VIII of the Periodic Table of elements.

3.(previously presented) The method according to claim 1 wherein the metal M_h comprises one or more metals selected from the group consisting of elements of Groups Ib, VIIb and VIII of the Periodic Table of elements.

4.(previously presented) The method according to claim 1, wherein the metal M_h comprises one or more metals selected from the group consisting of iron, ruthenium,

osmium, cobalt, rhodium, iridium, nickel, palladium and platinum.

5.(previously presented) The method according to claim 1, wherein the metal M_h comprises one or more metals selected from the group consisting of nickel, cobalt, palladium, iridium, ruthenium, rhodium and platinum.

6.(previously presented) The method according to claim 1, wherein the metal M_h comprises nickel.

7.(previously presented) The method according to claim 1, wherein the metal M_h is completely or partially coated with hydrogen before the treatment of the metal ions M_i which are present in the aqueous effluent.

8.(canceled)

9.(canceled)

10.(currently amended) The method according to claim 1, wherein the metal ions M_i are the ionic forms of the elements or combinations of elements selected from the group consisting of scandium, yttrium, lanthanum, actinium,

titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, tungsten, manganese, technetium, rhenium, iron, ruthenium, osmium, cobalt, rhodium, iridium, nickel, palladium, platinum, copper, silver, gold, zinc, cadmium, mercury, aluminum, gallium, indium, thallium, silicon, germanium, tin, lead, arsenic, antimony, bismuth, selenium, tellurium, polonium, iodine, astatine, cerium, europium, uranium, neptunium and plutonium, alone or in admixture.

11.(currently amended) The method according to claim 1, wherein the metal ions M_i are the ionic forms of the elements or combinations of elements selected from the group consisting of titanium, vanadium, chromium, manganese, iron, cobalt, nickel, platinum, copper, silver, gold, zinc, cadmium, mercury, aluminum, lead, arsenic, antimony, bismuth, selenium, polonium, cerium, uranium, neptunium and plutonium, alone or in admixture.

12.(previously presented) The method according to claim 1, wherein the metal ions M_i are the ionic forms of the elements or combinations of elements selected from the group consisting of tin, chromium, cobalt, nickel, copper, zinc, cadmium, mercury, lead, arsenic, antimony, selenium,

polonium, uranium, neptunium and plutonium, alone or in admixture.

13.(previously presented) The method according to claim 1, wherein the metal M_h is deposited on a support.

14.(previously presented) The method according to claim 1, wherein the method is carried out at temperatures in the order of between approximately 0°C and 200°C.

15.(previously presented) The method according to claim 1, wherein the method is carried out with aqueous effluents whose pH value is in the order of between approximately 1 and approximately 14.

16.(previously presented) The method according to claim 1, wherein the aqueous effluent to be processed is water from groundwater tables, surface water, water distribution networks or industrial water, waster water, slurries or industrial waste.

17.(withdrawn) A decontamination kit comprising at least a metal M_h , which is intended to be utilized in the method according to claim 1.

18.(previously presented) The method according to claim 1, wherein the method is carried out at temperatures in the order of between approximately 0°C approximately 80°C.